PATENTS
112055-0040P1
17732-38560.002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of: David Chong Sook Lim et al.	)	
Serial No.: 10/664,982	)	Examiner: Leonardo Andujar
Filed: September 17, 2003	)	
	)	Art Unit: 2826
For: PACKAGING SYSTEM FOR DIE-UP CONNECTION OF A DIE-DOWN ORIENTED INTEGRATED CIRCUIT	)	

Cesari and McKenna, LLP
88 Black Falcon Avenue
Boston, MA 02210
August 18, 2008

CERTIFICATE OF EFS WEB TRANSMISSION

I hereby certify that the following paper is being EFS WEB transmitted to the Patent and Trademark Office on August 18, 2008.

/Kristin Bigelow/
Kristin Bigelow

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REPLY BRIEF

This brief is being filed within two (2) months of the date, June 26, 2008, of the filing of the Examiner's answer to the appeal brief filed January 29, 2008. The order of topics is as designated in section 1205 of the MPEP.

STATUS OF THE CLAIMS

Claims 1, 4, 5 and 8 are the only claims remaining in the case and all stand finally rejected under 35 USC 103(a) as being unpatentable over Shim et al. (US 6,531,784) , hereafter "Shim," in view of Kang et al. (US 2003/017810 A1), hereafter "Kang."

Claims 2, 3, 6 and 7 are canceled.

GROUNDS FOR REJECTION

There are no new grounds for rejection offered by the Examiner in the Examiner's Answer.

Grounds for rejection that are to be reviewed on appeal:

The Office Action of August 10, 2007 rejected claims 1, 4, 5 and 8 (all the claims remaining in this application) under 35 U.S.C. 103(a) as being unpatentable over Shim et al. (US 6,531,784) , hereafter "Shim," in view of Kang et al. (US 2003/017810 A1), hereafter "Kang."

ARGUMENT

With respect to the Examiner's Answer, his item 10 on page 6 et seq.:

On page 7, the third paragraph, the Examiner states, "...the fact that applicant has recognized another advantage which would naturally flow from following the suggestion of the prior art..."

This conclusionary statement is simply not true.

Notice the title of this application is "Packaging System for Die-Up Connection of a Die-Down Oriented Integrated Circuit." The title illustrates an example of the claim. The applicant's motive for this invention from the beginning had the aim of eliminating a package type. The advantage is not "another advantage." See the affidavit of Douglas Dolan, filed July 16, 2004. The commercial success follows the law as recently stated by the U.S. Supreme Court in the "KSR" decision.

Contrary to the assertion of the Examiner, the prior art does not anticipate or suggest, the present claims. The only way to arrive at the limitations of present claim 1 is to take the present claim 1 as a guide and suggest leading questions of the cited prior art. The references do not show runs under the chip, and the prior art does not show the runs connecting contacts adjacent to a first side of the die to contacts adjacent to the opposite side of the die. This allows the invention to accommodate a different pin out (see claims 4 and 8) and the saving of a package type.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

/Edwin H. Paul/
Edwin H. Paul
Reg. No. 31,405
CESARI AND MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500

Appendix A – Claims

1. (Previously Presented) A die containing package comprising:

a die defining electrical die contacts, the die contacts arranged along a first and an opposite side of the die,

a substrate defining first substrate contacts,

flattened electrical conductive balls attached to the die contacts and making electrical connection thereto,

electrical conductive runs on the substrate that run substantially under the die connecting the first substrate contacts, wherein the first substrate contacts are located adjacent to the first side of the die, to second substrate contacts, wherein the second substrate contacts are located adjacent to the opposite side of the die, electrically conductive wires with first ends making electrical connections to the first substrate contacts, wherein the wires are formed to run substantially parallel to the surface of the die, and wherein the other ends are horizontally attached to the flattened balls.

2-3. (Cancelled).

4. (Previously Presented) The die containing package of claim 1 wherein the second substrate contacts are located on the substrate to accommodate a pin out different from the die.

5. (Previously Presented) A process for packaging a die comprising the steps of:

defining electrical die contacts, the electrical die contacts arranged along a first and an opposite side of the die,

defining a substrate with first substrate contacts,

flattening electrical conductive balls,

attaching the flattened electrically conductive balls to the die contacts,

forming electrical conductive runs on the substrate that run substantially under the die connecting the first substrate contacts, wherein the first substrate contacts are located

adjacent to the first side of the die, to second substrate contacts, wherein the second substrate contacts are located adjacent to the opposite side of the die,

connecting electrically conductive wires to the first substrate contacts,

running the electrically conductive wires substantially parallel to the surface of the die to the die contacts, and

horizontally attaching the other ends of the wires to the flattened electrical conductive balls thereby making electrical connections there between, and wherein the other ends remain substantially parallel to the surface of the die.

6-7. (Cancelled).

8. (Previously Presented) The process of claim 5 further comprising the step of locating the second substrate contacts on the substrate to accommodate a pin out different from the die.